

WHAT IS CLAIMED IS:

- 5J  
B1
1. An electro-optical device of an active matrix comprising:
    - a gate line provided on a substrate;
    - a data line provided on said substrate;
    - a wiring provided on said substrate;
    - a pixel electrode provided on said substrate and superposed on said gate line with an insulator therebetween and superposed on said wiring with an insulator therebetween; and
    - at least one transistor provided on said substrate and connected with said gate line at a gate thereof and connected with said data line at one of source and drain thereof and connected with said pixel electrode at the other one of the source and drain.
  - 5J  
E17  
2. The device of claim 1 wherein said wiring is another gate line provided on said substrate.
  3. The device of claim 1 wherein said wiring is in parallel with said gate line.
  4. The device of claim 1 wherein difference between area shared by said gate line and said pixel electrode and area shared by said wiring and said pixel electrode is not more than one tenth of sum of said area shared by said gate line and said pixel electrode and said area shared by said wiring and said pixel electrode.
  - 5J  
B2 7  
5. An electro-optical device of an active matrix comprising:

B2  
cont'd

a gate line of n-th row provided on a substrate;  
a gate line of (n+1)-th row provided on said substrate;  
a data line of m-th column provided on said substrate;  
a pixel electrode of n-th row and m-th column provided on said substrate and connected with said data line and said gate line of n-th row through corresponding at least one transistor;  
and

a pixel electrode of (n+1)-th row and m-th column provided on said substrate and connected with said data line and said gate line of (n+1)-th row through corresponding at least one transistor,

wherein said pixel electrode of n-th row and m-th column is provided on an opposite side of said data line to said pixel electrode of (n+1)-th row and m-th column.

6. An electro-optical device of an active matrix comprising:

a first gate line provided on a substrate;  
a first data line provided on said substrate;  
a second gate line provided on said substrate and adjacent to said first gate line;  
a second data line provided on said substrate and adjacent to said first data line; and  
a pixel electrode provided on said substrate and connected with said first gate line and said first data line through at least one transistor, a gate thereof being connected with said first gate line and one of source and drain thereof being connected with said first data line and the other one of the source and drain being connected with said pixel electrode,

wherein said pixel electrode has substantially the same shape of an area surrounded by said first data line and said second data line and said first gate line and said second gate line, and said pixel electrode is enclosed by said first data line and said second data line and said first gate line and said second gate line.

7. The device of claim 6 wherein said pixel electrode is superposed on said first data line and said second data line and said first gate line and said second gate line to form capacitors, respectively.

8. The device of claim 7 wherein the capacitor formed by said pixel electrode and said first data line and the capacitor formed by said pixel electrode and said second data line have capacitances smaller than those of the capacitor formed by said pixel electrode and said first gate line and the capacitor formed by said pixel electrode and said second gate line.

9. A method of driving an electro-optical device comprising:

- a gate line provided on a substrate;
- a data line provided on said substrate;
- a wiring provided on said substrate;
- a pixel electrode provided on said substrate and superposed on said wiring with an insulator therebetween; and
- at least one transistor provided on said substrate and connected with said gate line at a gate thereof and connected with said data line at one of source and drain thereof and

connected with said pixel electrode at the other one of the source and drain,

said method comprising the step of:

applying a voltage to said wiring in opposite phase to a pulse applied to said gate line during the application of the pulse to said gate line.

10. The method of claim 9 wherein said pixel electrode is superposed on said gate line with an insulator therebetween.

11. The method of claim 9 wherein said wiring is in parallel with said gate line.

12. The method of claim 10 wherein said wiring is in parallel with said gate line.

13. The method of claim 9 wherein said wiring is another gate line provided on said substrate.

14. The method of claim 10 wherein said wiring is another gate line provided on said substrate.

15. The method of claim 10 wherein said voltage is cut after said pulse is cut.

16. The method of claim 9 wherein said insulator comprises an anodic oxide.

17. The method of claim 16 wherein said anodic oxide comprises an oxide of a material selected from the group consisting of aluminum, tantalum and titanium.

18. A method of driving an electro-optical device comprising:

a first gate line provided on a substrate;

a data line provided on said substrate;

a second gate line provided on said substrate;

a pixel electrode provided on said substrate and superposed on said second gate line with an insulator therebetween; and

at least one transistor provided on said substrate and connected with said first gate line at a gate thereof and connected with said data line at one of source and drain thereof and connected with said pixel electrode at the other one of the source and drain,

said method comprising:

applying a bipolar pulse comprising two pulses having opposite polarities to each other to said first gate line.

19. The method of claim 18 wherein said pixel electrode is superposed on said first gate line with an insulator therebetween.

20. A method of driving an electro-optical device comprising:

a gate line provided on a substrate;

a first data line provided on said substrate;

a second data line provided on said substrate and

adjacent to said first data line;

a pixel electrode provided on said substrate and superposed on said first data line with an insulator therebetween and superposed on said second data line with an insulator therebetween; and

at least one transistor provided on said substrate and connected with said gate line at a gate thereof and connected with one of said first data line and said second data line at one of source and drain thereof and connected with said pixel electrode at the other one of the source and drain,

said method comprising:

applying a signal to said second data line; and

applying to said first data line a signal having a polarity opposite to that of the signal applied to said second data line.

Add  
A1  
Add  
C4

Add  
D1  
Add  
E4